

*Serial No. 09/713,843*  
*P. Berg et al.*  
*Amendment and Request for Reconsideration*

## REMARKS

In accordance with a telephone discussion with Examiner Pillai on July 12, 2004, Applicants are submitting this Amendment and Request for Reconsideration for entry and consideration by Examiner Pillai. Applicants understand that Examiner Pillai will contact the undersigned representative after the application file has been retrieved, for the purpose of a telephone discussion to advance prosecution of the application.

The Remarks include a discussion of the rejected claims (Claims 1-33), followed by a discussion of the new claims (Claims 34-56) that are added by this Amendment.

### A. THE PENDING OFFICE ACTION

The Examiner rejected Claims 1-12 under Section 102(e) over the newly cited patent to Wattenberg (U.S. Patent No. 6,583,794) and rejected Claims 7-31 under Section 103 over Wattenberg and the patent to Hartman (U.S. Patent No. 5,960,411). Applicants have amended Claim 19 solely for purposes of providing proper antecedent basis. It is submitted that all the currently pending claims patentably define over the cited art.

The claimed invention relates to a technique for providing treemap displays such as illustrated in Figure 3B of the application. Figure 3B shows a computer display area 330 that includes a plurality of field areas 340, each of which represents a particular group or category of data (see page 15, lines 1-7 of the specification). Each field area 340 is subdivided into subfield areas 354, each of which represents one or more data elements of the corresponding category (see page 15, lines 8-13). For example, the field areas 340 of Figure 3B represent Airline Flights, Hotels, and Car Rentals available for booking, and corresponding subfield areas 354 represent particular flights, hotels, and car rentals, respectively.

#### 1. Rejection of Claims 1-12 as Anticipated by Wattenberg

The Wattenberg patent describes a treemap display and is believed to correspond to the "Map of the Market" Internet Web site that was previously discussed with the Examiner and which was cited in Applicants' previously filed Information

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Disclosure Statement. Claims 1-12 were rejected as anticipated by the Wattenberg patent. Of these rejected claims, the independent claims (Claim 1 and Claim 7) contain limitations that define over the Wattenberg patent.

Claim 1 of the pending application recites:

1. A method of processing user criteria ... comprising:
  - receiving user criteria that specifies a subset of the data with respect to multiple data criteria;
  - retrieving the data subset from the data; and
  - displaying the data subset in a display defined by a two-dimensional field array of information, ...; and
  - displaying a subfield detail window adjacent to one of the subfield areas in response to moving a display cursor over a boundary of the bounded subfield area to show data relating to the bounded subfield area, and displaying a menu window adjacent to the bounded subfield area in response to a mouse click on the bounded subfield area such that the menu window shows information relating to the bounded subfield area data subset and can receive user criteria from the user to specify additional information relating to the bounded subfield area.

The system described in the Wattenberg patent provides a treemap display, but does not display a menu window adjacent to the bounded subfield area and does not "receive user criteria from the user to specify additional information relating to the bounded subfield area," as recited in Claim 1. The "additional information" may comprise, for example, information "allowing the user to specify how the subfield areas 354 are grouped" (see Figure 3B and page 20, lines 8-17). Moreover, the additional information could comprise user selection of subfield area attributes to reconfigure the treemap display (see Figure 14 and page 40, line 14 through page 41, line 3).

Wattenberg shows no such ability to "receive user criteria from the user to specify additional information relating to the bounded subfield area," as recited in Claim 1. Wattenberg describes merely adjusting the display parameters, permitting a user to "zoom in" on an area of the tree map display (column 3, lines 21-23), or select from predetermined information (cited by the Examiner at column 9, lines 14-20). Though

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Wattenberg permits adjustment of display parameters, he does not permit user specification of additional information regarding the subfield area in any one of the ways in which the illustrated embodiment provides: Wattenberg does not permit user specification of data groupings, and does not permit user reconfiguration of the treemap display. Either one of these features corresponds to features such as the recited Claim 1 limitation, and defeats the Section 102 rejection by the Examiner for Claim 1 and for Claims 2-6 that depend from Claim 1.

Applicants note that Claims 7-12 were included among the claims indicated as rejected under Section 102 over the Wattenberg patent, though the Office Action included no specific mention of Wattenberg to Claims 7-12. For the sake of a complete response, Applicants will next address Wattenberg with respect to Claims 7-12 as being anticipated.

Claim 7, the other pending Independent claim rejected as anticipated by the Wattenberg patent, also contains patentable limitations. Claim 7 recites:

7. A method of presenting information regarding plural products on a computer display screen for perusal and selection by a user, the method comprising:

displaying a product review page on the display screen, the product review page comprising one or more two-dimensional, bounded field areas, each bounded field area corresponding to a particular product category, wherein one or more of the bounded field areas is divided into plural bounded subfield areas, each of the bounded subfield areas corresponding to and representing a product, and wherein each bounded subfield area has a first attribute that is indicative of a first characteristic of the corresponding product;

displaying a menu box that provides the user with the ability to insert any product corresponding to a subfield area into an electronic shopping cart;

providing the user with the ability to perform a single action to initiate a purchase transaction of all of the items in the shopping cart.

Wattenberg does not relate to "presenting information regarding plural products on a computer display screen for perusal and selection by a user," as recited in the preamble

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to Claim 7. Wattenberg does not display a menu box and cannot receive user inputs so as to comprise "displaying a menu box that provides the user with the ability to insert any product corresponding to a subfield area into an electronic shopping cart," as recited in Claim 7. Wattenberg cannot receive user inputs for "providing the user with the ability to perform a single action to initiate a purchase transaction of all of the items in the shopping cart," as also recited in Claim 7. Therefore, Claim 7 is not anticipated by the Wattenberg patent and Claims 8-12 that depend from Claim 7 are not anticipated.

**2. Rejection of Claims 7-33 as Obvious over Wattenberg and Hartman**

Among Claims 7-33, the independent claims (comprising Claims 7, 19, and 29) relate to treemap display of data representing products or items for purchase. Thus, all of these claims contain limitations related to user selection of items into an electronic shopping cart and accepting such selected items for purchase. As noted above, Wattenberg cannot receive user inputs for inserting items into a shopping cart and initiating a purchase of the items. The Examiner cited Hartman for relating to a Web based purchasing system and referenced Wattenberg's discussion of e-commerce applications such as Amazon.com (column 16, lines 53-58). To the contrary, however, Applicants submit that Wattenberg's discussion illustrates the non-obviousness of the claimed invention.

Wattenberg mentions the Amazon.com Web site at column 16, lines 53-58 but clearly does not even contemplate utilizing the treemap display for direct purchase transactions. Rather, Wattenberg merely mentions using the treemap display to provide a "better visualization" of products (col. 16, line 55), such as to "gauge the popularity" of a book as compared to other books (col. 16, lines 58-61). It is submitted that Wattenberg, by describing his treemap display as suitable for being employed only "to provide Internet users or customers with a better visualization of the products", teaches away from combining with e-commerce applications and teaches away from providing the claimed combination of this application. The combination of Claims 7-33 relates to a treemap display as recited above that also permits shopping, selection, and purchase

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from an integrated treemap display. Applicants submit that the references contain no suggestion or teaching for making the combination proposed by the Examiner and Applicants submit that, to the contrary, the references teach away from the claimed combination. Therefore, it is submitted that Claims 7-33 are patentable over the proposed combination of Wattenberg and Hartman.

#### **B. THE NEW CLAIMS**

The newly added claims comprise Claims 34-56. These new claims include claims directed to a method (Claims 34-38) and corresponding device claims (Claims 39-43). Additional dependent claims are included (Claims 44-48), as well as a set of additional method claims (Claims 49-56). These claims are supported by the application as filed and define an invention over the cited references, including the newly cited patent to Wattenberg.

##### **(1) Changing the Display Data Criteria**

Claim 34 recites a method that includes:

- receiving user criteria that specifies a subset of the data with respect to multiple data criteria;

- retrieving the data subset from the data; and

- displaying the data subset in a display defined by a two-dimensional field array of information, wherein the field array of the display is divided into a plurality of two-dimensional bounded field areas, each of which has a display area that is indicative of a first data criteria of the data subset, and wherein the area of each bounded field area is further divided into two-dimensional subfield areas, each of which has an area that is indicative of a second data criteria of the data subset;

- displaying a subfield detail window adjacent to one of the subfield areas in response to moving a display cursor over a boundary of the bounded subfield area to show data relating to the bounded subfield area, and displaying a menu window adjacent to the bounded subfield area in response to a mouse click on the bounded subfield area such that the menu window shows information relating to the bounded subfield area data subset;

- receiving user criteria from the user to specify changed second data criteria relating to the bounded subfield area; and

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changing one of the displayed subfield areas according to the received user criteria.

As noted above in the discussion of Wattenberg, the prior art does not show an ability for "receiving user criteria from the user to specify changed second data criteria relating to the bounded subfield area" and does not show an ability for "changing one of the displayed subfield areas according to the received user criteria." This capability is shown in the menu 1405 in Figure 14, by which a user can change the data display subfield area according to user input data criteria.

Similarly, Claim 39 recites a computer device that includes:

a display screen on which the device displays one or more two-dimensional bounded field areas, each bounded field area corresponding to a display area that is indicative of a first data criteria of a subset of the data elements, and each bounded field area is divided into one or more bounded subfield areas, the area of each bounded subfield area corresponding to and indicative of a second data criteria of the data subset, wherein the second data criteria is indicative of a data grouping of the data subset of the data elements; and

input means for receiving user criteria from the user to specify changed second data criteria relating to the bounded subfield area and changing one of the displayed subfield areas according to the received user criteria.

It is submitted that the cited art, including the patent to Wattenberg, does not provide an "input means for means for receiving user criteria from the user to specify changed second data criteria relating to the bounded subfield area and changing one of the displayed subfield areas according to the received user criteria." A suitable "input means" is illustrated, for example, as the display menu 1405 in Figure 14.

(2) Changing the Data Grouping

Claims 35 and 40 are respective dependant claims specifying that "changing the displayed subfield area" relates to changing the data grouping of the data subset in accordance with the changed second data criteria. It is submitted that the prior

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art, including Wattenberg, is limited to showing data elements according to hierarchies that are fixed and cannot be changed by the user. In contrast, the present invention permits a user to provide data criteria by which the user can change data groupings that organize the data elements into the display subfield areas, as indicated by the menu 1405 in Figure 14.

**(3) Changing the Display Area Size**

Claims 36 and 41 are dependant claims specifying that the received user criteria changes the display dimensions of the changed displayed subfield area in accordance with the changed second data criteria. Again, the prior art (including Wattenberg) show a fixed hierarchy of data. The disclosed invention of the present application allows the user to change the data criteria so as to change the display dimensions of the treemap. That is, the display dimensions change not in response to manipulation of the screen parameters, but in response to changed data criteria received from the user that relate to the underlying data elements. This feature is illustrated in Figure 14.

**(4) Changing the Display Color**

Claims 37 and 42 are dependant claims specifying that the received user criteria "changes the display color of the changed displayed subfield area in accordance with the changed second data criteria." That is, the display color is changed according to the received user input that relates to the underlying data elements (and their grouping), rather than simply a manipulation of screen display colors without regard to the underlying data elements. This feature is illustrated in Figure 14

**(5) Filtering the Data Display**

Claims 38 and 43 are dependant claims specifying that "the received user criteria applies a filter that changes the data elements that comprise the displayed subfield area according to the changed second data criteria." That is, the present

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invention permits a user to filter the data elements that produce a subfield area of the display. For example, in Figure 13 of the application, a user can group data elements by "Coffee Type", and can enter "Mocha" into the Product Search area 1376, so that the treemap will be redrawn, displaying only those items that have "Mocha" either in their title or description. The cited art, such as Wattenberg, cannot provide this feature. Rather, Wattenberg describes increasing the size of a particular area within a displayed hierarchy of data elements, but cannot "zoom" or filter according to a set of data elements defined through user input. Again, Wattenberg is limited to manipulation of the display image, and cannot change the display image according to user received data criteria relating to the data elements themselves.

(6) Descriptive Information Window for a Field Area

Claims 44-48 are dependent claims that relate to the descriptive information window that is described in the specification at page 39, lines 7-14 and illustrated in Figure 14.

(7) Display of Search Results

Claims 49-56 relate to utilizing the tree map display to return search results to a user after receiving user search criteria in a display window. This feature is illustrated in Figure 5 and is described in the specification at pages 24-25.

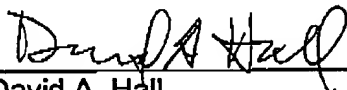


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**REQUEST FOR ALLOWANCE**

In view of the discussion presented above, it is submitted that all of the pending claims (1-33) and all of the new claims (Claims 34-56) are patentable.

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